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NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

**STRATEGIES FOR THE INTEGRATION OF MEDICAL
AND HEALTH REPRESENTATION WITHIN LAW
ENFORCEMENT INTELLIGENCE FUSION CENTERS**

by

James F. Morrissey

March 2007

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**STRATEGIES FOR THE INTEGRATION OF MEDICAL AND HEALTH
REPRESENTATION WITHIN LAW ENFORCEMENT INTELLIGENCE FUSION
CENTERS**

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Submitted in partial fulfillment of the
requirements for the degree of

**MASTER OF ARTS IN SECURITY STUDIES
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ABSTRACT

Terrorism-related intelligence gathering, analysis and information dissemination would be improved and enhanced by including a medical and health element in law enforcement intelligence fusion centers. The lack of medical representation and participation in intelligence analysis and information dissemination has been an obstacle to effective terrorism prevention, preparedness and response. Terrorist acts, including weapons of mass destruction, would have a significant and profound impact on the medical and health community. The medical and health community should work more closely with the intelligence community and be privy to terrorism-related information and alerts. The three areas of implementation to be examined include the FBI's Joint Terrorism Task Force, state level fusion centers and local (city, county, regional) terrorism early-warning groups. The Terrorism Liaison Officer Program will be examined as an option for medical personnel to become involved in anti-terrorism efforts. Literature on the subject shows overwhelming support for the involvement of non-law enforcement public safety representation, including the medical and health communities, in intelligence fusion centers.

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TABLE OF CONTENTS

I.	INTRODUCTION.....	1
A.	PROBLEM STATEMENT.....	1
B.	RESEARCH QUESTION.....	4
C.	PRACTICAL SIGNIFICANCE	5
D.	METHODOLOGY	6
E.	REVIEW OF LITERATURE.....	7
II.	TERRORISM THREAT TO AMERICA	13
A.	CURRENT AND FUTURE THREATS.....	13
B.	IMPLICATIONS OF TERRORISM FOR THE MEDICAL AND HEALTH COMMUNITY	16
1.	Overt Terrorist Attacks.....	17
2.	Covert Terrorist Attacks.....	17
3.	Impact of Terrorism on the Medical and Health Community	18
III.	INTELLIGENCE FUSION CENTERS	21
A.	OVERVIEW	21
B.	SURVEY OF FUSION CENTERS	23
C.	FUSION CENTERS WITH MEDICAL/HEALTH REPRESENTATION	24
D.	FUSION CENTERS WITHOUT MEDICAL/HEALTH REPRESENTATION	28
IV.	FUSION CENTER MODELS.....	31
A.	FEDERAL AND NATIONAL MODELS	31
1.	Department of Homeland Security	31
2.	Military Medical Intelligence	32
3.	FBI Joint Terrorism Task Force (JTTF).....	33
B.	STATE INTELLIGENCE FUSION CENTERS.....	36
1.	Overview.....	36
2.	California State Terrorism Threat Assessment Center	37
3.	Arizona Counter Terrorism Information Center	38
C.	LOCAL TERRORISM EARLY WARNING GROUPS.....	39
1.	Overview.....	39
2.	East Bay Terrorism Early Warning Group	40
3.	Joint Regional Intelligence Center of Los Angeles (JRIC).	41
D.	TERRORISM LIAISON OFFICER PROGRAM (TLO).....	42
V.	PROPOSED VISION OF MEDICAL/HEALTH REPRESENTATION IN FUSION CENTERS.	45
A.	IMPORTANCE OF THE VISION.....	45
1.	Hypothetical Medical Scenarios	46
2.	Relationship Building Prior to a Catastrophic Event.....	48

3.	Information Dissemination to the Medical and Health Community	49
4.	Medical Expertise within Intelligence Fusion Centers	50
B.	MEDICAL DISCIPLINE REPRESENTATION IN INTELLIGENCE FUSION CENTERS.....	51
1.	Public Health	52
2.	Emergency Medical Services.....	54
3.	Other Medical Disciplines	54
C.	IMPLEMENTATION DECISIONS AND ISSUES.....	55
1.	Selection, Vetting and Security Clearances	55
2.	Liaison, Part-time and Full-time Assignments	56
3.	Training and Orientation	56
4.	Patient Confidentiality Issues.....	57
VI.	SOLUTIONS	61
A.	GENERAL FINDINGS.....	61
B.	POLICY OPTIONS AND SUGGESTIONS	62
1.	Policy Option A	62
2.	Policy Option B	63
3.	Policy Option C	64
4.	Policy Option D	65
5.	Policy Option Recommendation.....	67
VII.	CONCLUSION	69
A.	SUMMARY	69
B.	RECOMMENDATIONS FOR FUTURE RESEARCH	71
	LIST OF REFERENCES.....	73
	INITIAL DISTRIBUTION LIST	77

LIST OF FIGURES

Figure 1.	Fusion Center Summary	37
Figure 2.	Strategy Canvas comparing intelligence fusion centers with and without the inclusion of non-law enforcement public safety disciplines.....	61

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LIST OF TABLES

Table 1.	Intelligence Fusion Centers with Medical/Health Representation.....	27
Table 2.	Fusion Centers with No Medical/Health Representation	30

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I. INTRODUCTION

A. PROBLEM STATEMENT

If we can really understand the problem, the answer will come out of it, because the answer is not separate from the problem.

– Jiddu Krishnamurti

Intelligence gathering, analysis and information dissemination related to anti-terrorism efforts would be improved by the inclusion of medical and health representation in intelligence fusion centers. The lack of medical participation in intelligence analysis and information dissemination is an obstacle to effective terrorism prevention, preparedness and response.¹ Literature on the subject shows overwhelming support for the involvement of non-law enforcement public safety representation, including the medical and health communities, in intelligence fusion centers.

While a few state fusion centers and local terrorism early warning groups have recently augmented their programs with medical personnel, most do not. Many authorities agree that systems must be initiated to facilitate sharing between groups with responsibilities that include public safety. According to the 9/11 Commission recommendations, “Information procedures should provide incentives for sharing to restore a better balance between security and shared knowledge.”² Information sharing has greatly improved within the law enforcement community following the attacks of 9/11; yet, most non-law enforcement emergency response agencies, including emergency medical services and public health, remain excluded from intelligence analysis and timely

¹ Jay C. Butler, “Collaboration Between Public Health and Law Enforcement: New Partnership for Bioterrorism Planning and Response,” *Emerging Infections Diseases*, Vol. 8, No. 10 (2002) <http://www.cdc.gov/ncidod/EID/vol8no10/pdf/02-0400.pdf> (accessed 12/01/06).

² Thomas H. Kean and Lee H. Hamilton, *The 9/11 Commission Report* (New York: W.W. Norton, 2004), 417.

information dissemination. Informal networks have been established, but these efforts are not sufficient. Therefore, terrorism prevention and response continues to be impeded by the lack of integration between the law enforcement/intelligence community and public safety, including emergency medical, hospital and public health response systems.

The medical and health community includes many disciplines and specialties. For the purposes of this research, the “health community” is defined as those working in the general medical and public health profession, including physicians, nurses, public health practitioners (epidemiologists, health officers, infection control practitioners, public health nurses etc.) and medical lab workers. The “medical community” includes hospital practitioners, emergency department physicians, nurses, technicians and field emergency medical practitioners (Emergency Medical Technicians, Paramedics). Fire department emergency medical personnel are included as part of this research, but not the fire department as a whole, as their primary mission is not “medical”. The focus of this research is on those people and groups whose duties are primarily medically oriented, and their integration with intelligence and law enforcement fusion centers.

The emergency medical and public health communities have significant roles in the safety and protection of United States citizens. As such, these organizations are crucial to terrorist attack prevention, preparedness and response systems.

It is proper that these organizations be privy to intelligence products: information flow from intelligence directly affects its service to the public. The use of chemical, biological, radiological and explosive weapons would have a profound impact on the entire healthcare system. Since these organizations are directly involved in all aspects of response to a terrorist attack, they should have as much advance warning and information related to terrorism as possible. However, there is no comprehensive information dissemination system for emergency medical responders, hospitals or public health.

Security protocols limit the flow of information to the medical and health community. For instance, the release of classified or law enforcement sensitive information is complicated by the need for security clearances in Terrorism Task Forces or so called “Terrorism Fusion Centers.”

There are many terms used to denote centers focused on law enforcement and multi-agency terrorism intelligence collaboration. Some common examples include: Terrorism Task Force, Terrorism Early Warning Group, Intelligence Fusion Center, Interagency Intelligence Analysis Center and Terrorism Working Group. For simplicity and purposes of this research, state sponsored and controlled intelligence and law enforcement centers will be referred to as “state fusion centers”. City, county or regional law enforcement intelligence centers that have an anti-terrorism mission will be referred to as “Terrorism Early Warning Group” (TEWG). The general term “fusion center” will be used as a catch-all term to describe all levels (federal, state, regional and local) of government law enforcement anti-terrorism intelligence centers.

Although an unofficial pipeline of information sharing exists between those in law enforcement and the medical community, a better system is necessary. Minimally, plans should be in place to ensure timely dissemination of terrorist threat warnings. The medical community has become more aggressive in procuring information. However, information is usually obtained at the same time that it is made publicly available. This makes it less actionable.

There is much that medical and health professionals can offer the intelligence analysis process. Terrorism prevention is complex and demanding work. As such, a multi-disciplinary approach increases the likelihood of success. Trained intelligence analysts are well-versed in general knowledge and techniques, but typically have limited medical, pharmaceutical, or health training. Yet, medical understanding can be crucial. For instance, much of the language of Weapons of Mass Destruction (WMD) is medical in nature.

As a comparison, one would think it absurd not to have an Arab specialist addressing Arab-specific issues. Al Qaeda uses the history, language, and societal norms of the Arab culture to communicate. Therefore, analysts who are familiar with the Arab culture are rightfully involved in the intelligence analysis process.

In fact, many subject matter experts are employed by intelligence agencies for specialized aspects of investigations. For example, financial analysts are used to scrutinize “money trails” in investigations related to terrorism.

Medical adepts are a natural addition to the analytical team. They offer unique, specific intelligence and are privy to a wide variety of international medical issues and information related to disease. International health concerns, disease outbreak and suspicious illness reports are important matters of medical intelligence and should be brought into the greater intelligence cell for comparative and in-depth analysis.

B. RESEARCH QUESTION

Is there a way to substantively involve the medical and health community in the intelligence and law enforcement fusion center efforts? Can a system be developed that offers medical expertise to intelligence analysis? Can channels be created to allow intelligence officials to liaise efficiently with the healthcare and the emergency medical community? While there is wide support for multi-disciplinary, multi-agency involvement in intelligence fusion centers and local terrorism early warning groups, medical representation has been integrated in only a few intelligence fusion centers. Many changes are necessary to incorporate the medical disciplines into the intelligence fusion process.

The research will examine the validity of medical and health representation in intelligence fusion centers. Precedence for information sharing set by previous models will be reviewed. The value to the intelligence and health

communities will be evaluated. Potential policy options for smoothly incorporating the medical community into fusion centers will be explored. Federal, state and local law enforcement intelligence centers will be examined. Specifically, the FBI Joint Terrorism Task Forces (JTTF), state intelligence fusion centers, local/regional terrorism early warning groups and local Terrorism Liaison Officer (TLO) Programs will be evaluated for the most appropriate integration of a medical and/or health representative.

C. PRACTICAL SIGNIFICANCE

This research may help create a new paradigm for information sharing among the intelligence, law enforcement and medical and health communities. With it, new precedence may be set for collaboration between law enforcement/intelligence agencies and healthcare organizations such as public health, hospital groups and Emergency Medical Services (EMS).

The appointment of healthcare representation to FBI JTTFs, intelligence fusion centers and TEWGs should not only increase the quality and timeliness of information sharing, but also benefit the FBI and other law enforcement agencies in their work. Bringing a medical and health expert into the intelligence analysis process would increase the capabilities of the intelligence process.

With the well-accepted Terrorism Liaison Officer Program, medical and health professionals can help increase the number of observers and intelligence collectors in the community. Since medical professionals are immersed in the communities they serve, they can be utilized as additional “eyes and ears” in the war on terrorism.

The audience of this research will be the broad law enforcement and intelligence community, public health officials and emergency medical service decision-makers. It will be made available for review to any decision-makers in the fields related to the research’s applications.

D. METHODOLOGY

This research includes a comprehensive analysis of academic, medical, law enforcement and popular literature. Surveys were conducted throughout the country. Geared toward ascertaining accurate information about membership in fusion centers, the surveys were administered to FBI JTTFs, state intelligence fusion centers, local terrorism early warning groups and other similar agencies. Results identified fusion centers with medical representatives and helped determine what specific medical disciplines are represented. Issues of qualification, selection, security clearance, training and time commitment were included. Research focused on the presence and functionality of medical representation in an intelligence fusion center.

As part of the survey process, interviews were conducted to learn the opinions, insight and recommendations of experts working in the field. Interview subjects included members of law enforcement, intelligence, public health and emergency medical fields.

Two major categories were examined to evaluate proposed policy options: political/agency support and practical feasibility. Thus far, research has shown wide endorsement for more comprehensive inclusion of health representation into the fusion center matrix. However, it would be crucial to the success of the program that members of intelligence, law enforcement and public health demonstrate active and ongoing support. With all parties supporting greater medical inclusion, a smooth transition is possible. To this end, a compilation of the opinions from the interviews and surveys was used to refine the proposal and assist with potential implementation.

Even with financial, political and agency support, design and implementation of the solution programming must be feasible. Fusion centers with medical or healthcare representative were asked to comment on the value added by having such membership. Specific suggestions for implementation of medical and health representation in fusion centers are included.

E. REVIEW OF LITERATURE

The literature review examined government documents such as the 9/11 Commission Report, Department of Homeland Security (DHS) / Department of Justice (DOJ) Fusion Center Guidelines, the National Security Strategy of the United States, the National Strategy for Homeland Security, the Commission on Intelligence Capabilities and testimony to Congress from FBI Joint Terrorism Task Forces (JTTF) representatives. A comprehensive analysis of law enforcement, public health and medical trade journals that address intelligence and law enforcement relations is also included. After Action Reports (AAR) from several multi-agency terrorism exercises were also evaluated for their useful recommendations.

Much can be gleaned from the full-scale, multi-agency exercise called “Golden Guardian-2004.” This exercise took place in California. It included over 80 public safety agencies and over 1,000 participants. The exercise was coordinated by the U.S. Department of Homeland Security, the Office for Domestic Preparedness and the California National Guard. EMS, local hospitals and public health agencies were all active participants. The “Golden Guardian 2004” official After Action Report had this specific recommendation:

Public health needs representation in the JTTFs, so they can be better prepared for responding to a WMD event. Public health officials should identify representation and obtain a security clearance so passing information to them will be without incident. Building relationships with law enforcement officials will also help public health be more involved in the circle of information as well as helping others understand the importance public health plays in WMD incidents.³

The literature supports the inclusion of medical and health representation in intelligence fusion centers at all levels of government. Most authorities agree that state fusion centers, FBI JTTFs, local TEWGs and national intelligence

³ U.S Department of Homeland Security, After Action Report: “Golden Guardian 2004,” *Homeland Security Exercise and Evaluation Program* (2004).

centers should have local and state multi-disciplinary, multi-agency representation, including public safety. Moreover, many authorities have identified inadequate information sharing and dissemination as a significant obstacle to effective terrorism prevention. James Carafano of the Heritage Foundation suggested that state and local representation in the intelligence analysis process is necessary and should be implemented without delay.⁴ Literature suggests that the medical, public health and general healthcare community should have an increased role in law enforcement anti-terrorism efforts and intra-agency collaboration.

The call for medical collaboration with fusion centers is documented in many publications from the medical and law enforcement communities. For instance, in an October 2002 article of *Emerging Infectious Diseases* titled “Collaboration between Public Health and Law Enforcement: New Paradigms and Partnerships for Bioterrorism Planning and Response,” the author addresses issues raised in the management of the then recent anthrax releases. In the report, the importance of good relationships between public health agencies and the FBI was highlighted. Dr. Jay Butler stressed that “partnerships between public health and law enforcement is a prerequisite to sound bioterrorism planning and response.”⁵ He continued by stressing the importance of training and systems integration as part of national preparation for possible disasters:

Thus, public health and law enforcement need to increase mutual collaboration and understanding before they are thrown together in response to a biological attack. To this end, liaison personnel are needed who have some degree of cross-training in the public health aspects of communicable diseases and in law enforcement and criminal investigations.⁶

⁴ James J. Carafano, “Terrorist Intelligence Centers Need Reform Now,” *The Heritage Foundation* (2004), <http://www.heritage.org/Research/HomelandDefense/em930.cfm/> (accessed 1/15/07).

⁵ Butler 1155.

⁶ Butler 1155.

The complexity of the investigation of the 2001 Anthrax release necessitated collaboration between law enforcement and public health. The Center for Disease Control (CDC) worked closely with the FBI on this inquiry. Their joint effort catalyzed knowledge that was immediately recognized for its national benefit. Since then, a CDC medical representative has had a permanent assignment at FBI headquarters to liaise between the healthcare community and the law enforcement network.⁷ This is a clear indicator that medical and health involvement with law enforcement and intelligence centers is critical and practical.

Two months before 9/11, the CDC, as part of the Department of Health and Human Services, emphasized the importance of a strong partnership with the FBI JTTFs both before and after a terrorist event.⁸

Although officials in state and local government feel there have been some improvements in information dissemination, there is general agreement that further enhancements are necessary. Jim McKay, of *Government Technology* magazine, made the following observation:

Changes [in information dissemination] include improving the way information is shared with state and local officials -- which has improved somewhat since 9/11, with the advent of the Homeland Security Information Network (HSIN) and as a result of Joint Terrorism Task Forces. But, officials charged with protecting local communities continue to express frustration that intelligence is too often tardy and lacking detail by the time it reaches states.⁹

In August of 2005, the Department of Justice (DOJ) and the Department of Homeland Security (DHS) released a comprehensive document called *Fusion Center Guidelines: Guidelines for Establishing and Operating Fusion Centers at the Local, State, and Federal Level*. An earlier version of this document focused

⁷ Butler 1155.

⁸ U.S. Department of Health and Human Services, "The Public Health Response to Biological and Chemical Terrorism: Interim Guidelines," CDC (2001): 79.

⁹ Jim McKay, "The Security Shuffle," *Government Technology* (2005), http://www.govtech.net/magazine/channel_story.php/97157 (accessed 11/15/06).

on law enforcement being the primary “driver” of fusion centers and suggested the involvement of public safety and private sector representatives as an option. The updated version of this document emphasizes that the critical mission of fusion centers is not complete without comprehensive inclusion of public safety, including EMS, public health and the greater medical community. The document stresses that public safety can bring quality analytical expertise into the fusion center process, as well as increase the number of “intelligence collectors” within the community. It also emphasizes that the ability to disseminate and share information would be enhanced with the inclusion of public safety disciplines.

Public safety partners should be incorporated into all phases of the intelligence/fusion process. Entities within this sector represent nontraditional information gatherers and can provide fusion centers with both strategic and tactical information, including crime-related trends (e.g., prescription drug fraud and fire investigations); additional response capabilities (fire and hazmat); and suspicious activity (e.g., unusual diseases reported at hospitals). Public safety entities should also be included in the dissemination and evaluation phases.¹⁰

The National Governors Associations (NGA) Center for Best Practices weighed in on this topic with an Issue Brief: *Establishing State Intelligence Fusion Centers*. Once again, the expansion of fusion center participation beyond law enforcement was recommended. They highlighted Arizona, Maryland and Georgia as good models of state fusion centers that fully embrace other public safety disciplines. In fact, Maryland’s fusion center mission statement includes language specific to the issue: “for the analysis and dissemination of information in statewide support of law enforcement, public health and welfare, public safety and homeland security.”

The NGA Issue Brief had the following recommendation:

To achieve the cross-functionality necessary for a successful fusion center, states should ensure that the center integrates staff from

¹⁰ United States Department of Justice, “Guidelines for Establishing and Operating Fusion Centers at the Local, State and Federal Levels,” United States Department of Justice (2006).

diverse agencies, including public safety, public health, energy, transportation, technology, the state national guard, etc. Although all state agencies do not need to be part of an IFC, the centers should have provision to incorporate, as needed, liaisons from agencies with homeland security interests.¹¹

Finally, the December 2005 Department of Homeland Security's *Lessons Learned: Information Sharing* found that local and state officials, as well as the private sector, would prefer a more inclusive homeland security framework that expands beyond the model predominantly in practice in which leadership consists of law enforcement exclusively. It is clear that law enforcement agencies should play the central role in any anti-terrorism, homeland security and intelligence sharing efforts. However, the efficacy of intelligence fusion centers would be enhanced by the inclusion of public safety disciplines such as public health, emergency medical services, fire and private sector entities. The DHS official recommendation is as follows:

DHS should support the expansion of homeland security intelligence sharing and analyst training to include all public safety and works disciplines, including critical private sector entities. The department should continue to encourage initiatives that promote a multi-disciplinary approach to information and intelligence sharing and fusion, such as the HSAC, Global Justice Information Sharing Initiative, and the Terrorism Early Warning (TEW) Expansion Projects.¹²

The FBI and law enforcement intelligence fusion centers are increasingly focused on prevention of terrorist acts. To this end, new partnerships with emergency medical services and public health are required. Intelligence information flowing into fusion centers are sorted by filters from various fields; but typically, none of the analysts have a medical perspective. Those well-versed in medical knowledge, WMD expertise and public health matters would greatly

¹¹ National Governors Association, NGA Center for Best Practices, *Issue Brief, "Establishing State Intelligence Fusion Centers"* (2005), <http://www.nga.org> (accessed 1/17/07).

¹² LLIS, "Intelligence and Information Sharing Initiative: Homeland Security Intelligence Requirements Process" (2005), <http://www.llis.gov> (accessed 1/15/07).

assist law enforcement in distinguishing genuine security threats from false ones, especially those pertaining to communicable diseases and bio-terrorism.

Literature from government, law enforcement and medical journals and popular circulations indicate support for the inclusion of public safety in the intelligence fusion process. Even with strong recommendations and support, most fusion centers have not attained the level of multi-agency, multi-discipline collaboration requested. Without mandates, these recommendations can only identify best practices and goals, but not assure that they are implemented.

II. TERRORISM THREAT TO AMERICA

This is not jihad. This is strictly business.

– Essam al Ridi

A. CURRENT AND FUTURE THREATS

Intelligence analysts warn that an attack on American soil using weapons of mass destruction (WMD) is possible. While some say a crisis of this sort is probable, others argue it is inevitable. Regardless of the estimated likelihood of a WMD event, the medical and health community must do everything feasible to prevent and prepare for an act of terrorism resulting in casualties.

Without terrorist threat, the significance of the research question is diminished. However, current popular and academic literature indicates that the threat of terrorism, especially that by extreme Islamic groups, has not passed and may be increasing. For the purposes of this research, it is important to explore the nature of the terrorist threat, including terrorists groups, ideology, tactics and preferred weapons. The implications of chemical, radiological, biological and explosive attack must be assessed to gauge the medical system's preparation for effective response.

The medical community can be employed in the prevention of terrorism if it has proper training and communications systems in place. For instance, the medical community is equipped to rapidly identify an early indication of a bioterrorist attack. It may be able to identify terrorist planning activities by tracking injuries or illnesses that suggest a terrorism nexus. Therefore, a more robust relationship between the medical community and law enforcement is required.

Evidence shows Al Qaeda and affiliated groups continue to look for weaknesses and vulnerabilities within the United States. Many experts

throughout the world believe that America will be targeted in the near future. Daniel Pipes, author of numerous books and articles, is the director of the Middle East Forum, a think tank on Middle East policy. He commented that terrorism from Islamic groups extends to the US:

So, let the warning be clear: Militant Islam seeks to destroy the United States (as well as Europe, Israel, and many other societies) as presently constituted. Islamists have shown resolve, tenacity, and tactical brilliance. Unless Westerners take this threat very much to heart, Islamists will be back, dispensing far worse punishments.¹³

On February 23, 1998, Osama bin Laden called for a new fatwa “for Muslims to kill Americans and Jews everywhere in the world.”¹⁴ He also has commanded that civilian and military American targets are to be attacked wherever and whenever the opportunity exists. It is not an alarmist view to assume that it is only a matter of time before we are faced with another terrorist attack on American soil. The potential attack could take any number of forms, such as suicide bombing, biological agent release, chemical attack, radiological dispersion device, or even nuclear attack.

Both authorities and terrorism experts are concerned that Al Qaeda is seeking nuclear weapons and developing plans to use them. “Unless [the Bush Administration] changes course—and fast—a nuclear terrorist attack on the United States will be more likely than not in the decade ahead” states Graham Allison, a professor at the Kennedy School of Government.¹⁵ Plans for the use of nuclear weapons have been substantiated by alarming intelligence. According to a report in 1994, evidence shows that Al Qaeda leader Osama bin Laden

¹³ Daniel Pipes, “The Attacks Were Part of Militant Islam’s War Against America,” *The Attack On America: September 11, 2001*, ed. James D. Torr (Detroit: Greenhaven Press, 2002).

¹⁴ Steven Emerson, *American Jihad: The Terrorist Living Among Us* (New York: Free Press, 2002) 149.

¹⁵ Graham Allison, “Nuclear Terrorism Is the Greatest Threat to National Security,” *What Are the Most Serious Threats to Homeland Security*, ed. James D. Torr (Detroit: Greenhaven Press, 2005) 14.

attempted to obtain nuclear weapons from Kazakhstan and showed interest in procuring several other forms of weapons of mass destruction.¹⁶

The war in Iraq has inflamed anti-American sentiment in the Muslim world. This war has been associated with a significant increase in suicide attacks worldwide. Respected author and researcher Robert Pape stated, “The longer American combat forces remain in the country [Iraq], the greater the risk that Iraqi suicide terrorists will seek to mount operations to kill Americans in the United States.”¹⁷ Scott Atran, a terrorism expert from the University of Michigan, commented on the subject in an ABC News report:

Using humans as bombs has gained in popularity over the last couple of years. From 2002 to 2003, more than 300 suicide attacks killed more than 5,300 people in 17 countries and wounded thousands, according to Atran, adding that more and more are religiously motivated. The numbers have drastically increased with the Iraqi insurgency opting for suicide bombing as the weapon of choice.¹⁸

In the same report, Bruce Newsome of the RAND Corporation discussed the July 2005 London suicide bombings. He said that the incident is a “likely model for future attacks on the U.S.”¹⁹ He observed that the suicide bombers in London were difficult to identify before the bombings; every offender was a legitimate citizen with no known contact or history with extremists. As “ordinary,” middle-class Muslims, they had only recently become radical extremists willing to act violently on their beliefs.

¹⁶ Surinder Rana, “Comparing Threats from Saddam and bin Laden,” *Strategic Insight*, Vol. 1, No. 7, (2002) <http://www.ccc.nps.navy.mil/si/sept02/middleEast3.asp> (accessed 11/15/06).

¹⁷ Robert Pape, *Dying To Win: The Strategic Logic of Suicide Terrorism* (New York: Random House, 2005).

¹⁸ Charlotte Sector, “Experts Say Suicide Mission in United States Is Inevitable,” *ABC News*, (2005) <http://www.abcnews.go.com/International/print?id=942343> (accessed 12/12/06).

¹⁹ Sector 2005.

Many of the known actions of both international and domestic terrorists indicate that biological, chemical and explosive weapons have been used in the past and more attacks are likely being planned.²⁰

Law enforcement counter-terrorism efforts have prevented potential attacks in America. While evidence suggests there are active terrorist cells in America, some alleged cells have been disrupted in New York City, Buffalo, Portland, Detroit and several cities in California. There have been over 200 suspected terrorists arrested in the United States since 9/11.²¹ The fusion center concept has facilitated greater sharing of information related to terrorism, which has led to arrests and deportation of terrorist suspects. The inclusion of medical and health representatives into the intelligence fusion process would help in the collection and dissemination of such information.

B. IMPLICATIONS OF TERRORISM FOR THE MEDICAL AND HEALTH COMMUNITY

With any terrorist act, the emergency medical, hospital and public health system would be significantly impacted, especially an attack resulting in mass casualties or the use of a weapon of mass destruction (WMD). If bioterrorist agents such as plague, anthrax or smallpox were released, it would require a combined and coordinated effort from the entire national medical community. The health system would need to work collaboratively with law enforcement, emergency management and many others in the public safety realm to effectively respond and recover.

Terrorist attacks come in two distinct forms: covert and overt. The role and function of the medical and health community is somewhat determined by the following categories of terrorist attack.

²⁰ Sector 2005.

²¹ Daniel Wood, "US Arrests Renew Terror Concerns," *Christian Science Monitor*, (2005) <http://www.csmonitor.com/2005/0610/p01s01-usgn.html> (accessed 10/22/06).

1. Overt Terrorist Attacks

Overt attacks are typically unannounced, often “explosive” events. Overt acts are by far the most common type of attacks by terrorists. Explosives are the preferred weapon of choice, delivered as suicide missions or using improvised explosive devices (IED) placed in cars or trucks. Less commonly, overt attacks involve intentional chemical release or an announced release of a biological agent. Usually, overt terrorist acts are immediately high profile. They require rapid law enforcement, fire, haz-mat, EMS and hospital involvement.

2. Covert Terrorist Attacks

Conversely, covert events are unannounced. These are “quiet” releases; a victim’s exposure to a dangerous substance is discovered only after symptoms of illness become apparent. Covert ambush may be chemical, radiological or biological in form.

Usually, covert terrorist attacks are detected first by the medical community. For instance, if a communicable disease such as plague or smallpox were released, it would be recognized by the victim’s healthcare provider. A bioterrorist agent release such as anthrax would be noticed the same way. Suspicious diseases are routinely reported to public health as mandated by law. This means that clinics, hospitals, labs and the public health department would probably be the first to identify an attack. Many specific diagnoses are reportable to local public health within designated timeframes, including some that could indicate terrorist actions.

Such information should then be passed on to local law enforcement and the FBI. However, the limited precedence for such information flow threatens to cause delays in response to covert attacks and other unfortunate outcomes. For instance, the anthrax release of 2001 was first identified by an astute physician who managed to convince local law enforcement that a possible crime had been

committed. If the medical community had stronger prior relationships with law enforcement, then it is reasonable to surmise that notification and corrective action may have taken place earlier.

3. Impact of Terrorism on the Medical and Health Community

Local public health departments have broad powers to contain and control diseases. The legal authority to close businesses, quarantine groups and individuals and force medical treatment lies neither with law enforcement nor with the fire department. Only the local Health Officer has the power to make such mandates on behalf of the community.

Public health departments are responsible for the coordination and distribution of medicines for the community in cases where mass prophylaxis is necessary. Therefore, any bioterrorist communicable disease released into the community would require the expertise of local, state and federal medical experts. Depending on the nature of the event, the FBI, public health department, medical and rescue communities have overlapping responsibilities in protecting lives, investigating the agent involved and containing the outbreak.

Many people in the emergency medical system, such as Emergency Medical Technicians and Paramedics, work in stressful and sometimes dangerous conditions on a daily basis. Terrorist actions put rescuers at risk. EMS personnel are typically the first medical responders to an event. Terrorists have been known to target first responders directly, sometimes employing the diabolical tactic of detonating secondary explosive devices.

Emergency Medical Services (EMS) stands ready in all communities to respond to any and all events where the injured or sick need care. Generally, EMS has a robust surge capacity enabling them to increase the number of responding medical units exponentially in relatively short order. EMS personnel

may discover early indicators of terrorist activities by observing suspicious behavior by patients or by identifying illness or injury patterns commiserate with terrorist planning activities or WMD agents.

The majority of injured eventually report to area hospitals. Any increase in the number of patients arriving at medical facilities stresses the entire healthcare system. Most hospitals in America typically operate at close to 100% capacity, with little physical space or additional staff to handle an increase in patient surge.²² Hospitals are not well-suited to deal with an influx of victims from a chemical or biological attack.²³ Moreover, hospitals are vulnerable to direct terrorist acts themselves. For instance, Muslim Chechen rebels have been known to target hospitals and take hostages from within medical facilities.

While much has improved in terrorism preparedness and response since 9/11, there has been little progress in “hardening” hospitals, or decreasing their vulnerability to terrorism. The medical community has no comprehensive early warning or threat notification system. Hospitals and the public health system typically take hours or days to rally resources and prepare for an increase of victims. For these reasons, the likely medical response to an unannounced terrorist attack would no doubt be chaotic, overwhelming and woefully insufficient.

²² Julie Kliger, RN, MPA, healthcare and patient safety expert, interviewed by author, December 7, 2006.

²³ D.C. Wetter et al., “Hospital Preparedness for Victims of Chemical or Biological Terrorism,” *American Journal of Public Health* 91 (2001): 710-716.

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III. INTELLIGENCE FUSION CENTERS

Joint undertakings stand a better chance when they benefit both sides.

– Euripides

A. OVERVIEW

The intelligence fusion center concept originated prior to the terrorist attacks of 9/11. In the 1990s, some law enforcement agencies co-located with other local, state and federal agencies to share information in order to create a more accurate intelligence picture about criminal activity. While there were some successes, the intelligence community and law enforcement were not sharing information in any substantive way before 9/11. The 9/11 Commission called this “human or systemic resistance to sharing information.”²⁴ Following the terrorist attacks of 9/11, intelligence fusion centers with an anti-terrorism mission were created at the federal, state and local level based on the impetus and recommendations of governmental reports.

Fusion centers were designed to break down barriers between various law enforcement agencies and the intelligence sector. They promote information sharing and inter-agency and inter-disciplinary collaboration. The focus of fusion centers is to embrace intelligence-led policing, collaboration and networking with other law enforcement, public safety and private sector partners. Fusion centers attempt to create intelligence products of local value to its customers, law enforcement and others involved in anti-terrorism efforts.

²⁴ Hamilton 416.

As of March 2006, thirty-one states had some version of a fusion center in operation. Most operate only during standard office hours. Eight states had chosen not to create a fusion center at that time.²⁵ Eleven states are currently developing a fusion center.

The majority of state fusion centers are primarily managed and staffed with law enforcement representatives. FBI JTTFs are also primarily staffed with law enforcement and military representatives. Only a few state fusion centers and FBI JTTFs have representation by other public safety disciplines. The Department of Justice's *Fusion Center Guidelines* recommends a process of developing a true multi-disciplinary center with three phases. First, law enforcement establishes the center. Next, public safety agencies are included. Finally, private sector representatives join.²⁶

Given the Department of Justice's guidelines, it is confounding that more public safety disciplines are not already working within the existing fusion centers. Surprisingly, the problem may originate within the fusion center guidelines. Law enforcement initially sets up the center, but specifications are not made to indicate when a program should expand to the second phase. Sometimes law enforcement officials may be reticent about opening up their center to other disciplines. It can take months or years to develop an effective center; if it is working well, law enforcement may be hesitant to introduce new factors into an already functional working dynamic.

Yet, fusion centers that have medical and health representatives have reported only good results. The benefit of having a medical and health representative is missed by those centers that do not have this kind of

²⁵ State and Regional Intelligence Fusion Center Contact Information, *National Criminal Intelligence Resource Center* (2006), <http://www.fas.org/irp/agency/ise/state.pdf> (accessed 1/22/07).

²⁶ United States Department of Justice, "Fusion Center Guidelines: Developing and Sharing Information and Intelligence in a New Era" (2006), http://it.ojp.gov/documents/fusion_center_guidelines_law_enforcement.pdf (accessed 2/1/07).

configuration. It is possible that law enforcement and intelligence decision-makers at fusion centers lacking medical representation simply do not know what they are missing.

Law enforcement based intelligence fusion centers need to be made aware of the recommendations and suggestions from the myriad of government documents. Fusion centers need to reach out to the public safety community and invite them to participate. In addition, public safety entities need to approach fusion center managers and request involvement in the process.

At the local level, there are many exceptions to the law enforcement-only norm. Local fusion centers, usually called Terrorism Early Warning Groups (TEWG), sometimes have non-law enforcement public safety members, such as fire, public works, transportation and medical/health representatives. Some TEWGs include a medical component as part of their full or part-time cadre. These representatives tend to be field providers who are actively involved in patient care and hospital operations.

B. SURVEY OF FUSION CENTERS

As part of the research, survey questions were developed and administered to accurately determine the inclusion of medical and health representation within fusion centers. The following questions were asked:

- 1) Does representation exist from the emergency medical and/or public health community in the fusion center?
- 2) If yes:
 - a) From what discipline(s) do they come?
 - b) What level of medical practitioner are they? (MD, RN, EMT, other)
 - c) Are they full-time, part-time or liaison?
 - d) Do they have a security clearance? To what level?
 - e) Did they receive training or orientation? If so, what kind?
 - f) Has this initiative been well-received? Is it working well? Why? Why not?

- 3) If no:
- a) Has there been any discussion to include representation from the emergency medical and/or public health community?
 - b) Is there interest to include medical and/or health representation?
 - c) Have medical and/or health representatives been invited, but chose not to participate?
 - d) Where does the fusion center go to get medical information? Does this system work?

The surveys were sent out to twenty FBI JTTFs, twenty state and regional fusion centers, and fifteen local TEWGs.²⁷ Interviews were conducted by telephone in some cases. 40% of the surveys were returned from FBI JTTFs, 55% were returned from state fusion centers and 33% were returned from local TEWGs.

JTTF survey findings were consistent with information generated by an internal FBI database listing all JTTF members according to city and agency.²⁸ An interesting pattern emerged, indicating that the centers more likely to return completed surveys were the same centers that had a medical or health representative. Telephone follow-ups on the survey recipients confirmed this observation.²⁹

C. FUSION CENTERS WITH MEDICAL/HEALTH REPRESENTATION

Fusion centers that employ a medical or health representative consistently gave high marks for the value added to their endeavor. However, there was no standard in terms of which medical discipline or level of practitioner represents

²⁷ Local TEWG contact information was difficult to find. Multiple database searches were limited in identifying specific agencies.

²⁸ FBI internal database, not publicly available.

²⁹ It is the belief of this author that most, if not all, fusion centers with medical health representation were accounted for in the research process.

the medical field in these centers. At the few FBI JTTFs that have medical representation at all, the medical task force officers were fire or EMS-based paramedics (EMT-P).

Most fusion centers have only one medical or health representative. While one representative is better than none, it may be short-sighted not to have back-up medical personnel in times of crisis. Moreover, it could create concerns due to possibility of turnover.

State fusion centers typically draw their health representation from the state health department. Registered nurses (RN) are their primary medical representative. The Georgia state fusion center uses a veterinarian as its medical representative.³⁰

Another interesting finding was the range in schedule and time commitment of the medical members. At all levels of government, most centers with medical representation commonly have their representatives working on a part-time basis: many only one day a week. The second most common model is that of a medical liaison, or an ad-hoc member that is contacted on an as-needed basis. Very few fusion centers have a full-time medical team member. The part-time model seems to be a “smart practice” because the sponsoring agency does not lose their employee for an extended timeframe, yet they still benefit from inclusion in the fusion center.

Fusion centers surveyed had various responses to the issue of security clearance. FBI JTTF members, including part-time medical representatives, are required to have Top Secret Clearance. At state and local centers, Top Secret Clearance is generally not required. The FBI has offered to provide Secret Security Clearance to local and state law enforcement officials to assist information sharing. Many full-time members of fusion centers have Secret Level Clearance.

³⁰ Lee Smith, Georgia Public Health Emergency Preparedness Coordinator, interview with author, January 10, 2007.

Orientation and training for medical members is markedly variable at federal, state and local fusion centers. The FBI offers a forty-hour JTTF training program available for non-FBI JTTF members, but medical representatives are not required to take it. The FBI JTTF model operates on an informal, on-the-job training basis. This stands in sharp contrast to approach taken by centers at the state level. Every state fusion center surveyed offered both orientation and ongoing training for all fusion center members. Some included intelligence analysis and risk/vulnerability assessment training. Most California TEWG medical and health representatives were required to take the state-approved forty-hour Terrorism Liaison Officer training.

Based on the results of the survey information, it appears that a minimal level of training should be instituted as part of the general requirements for all fusion center members. The Arizona Counter Terrorism Information Center has an extensive training program that should be looked at as a model program.

The survey shows that fusion centers at all levels of government inclusive of medical and health representation have addressed implementation issues in a wide range of ways. Categories, such as type of medical discipline, level of practitioner, security clearance and time commitment, are as varied as the centers themselves. However, what was found to be consistent in every survey and interview was the unwavering high marks given to the endeavor of medical and health participation in the fusion center process.

Table 1. Intelligence Fusion Centers with Medical/Health Representation

Fusion Center	Type	Medical Discipline	Medical Level	Time	Security Clearance	Training/ Orientation
San Francisco, CA FBI	JTTF	EMS	EMT-P	Part	Top Secret	Minimal
Sacramento, CA FBI	JTTF	EMS/Fire	EMP-P	Part	Secret TS (pending)	Minimal
El Paso, TX FBI	JTTF	EMS/Fire	EMT-P	Part	Top Secret	Minimal
Los Angeles, Joint Regional (JRIC)	Regional	PH	RN	Full	Secret	Yes
Colorado Information Analysis	State	State PH	MD	Liaison	None	Some
Arizona Counter Terrorism	State	PH	RN	Part	Secret	Extensive
Georgia Information Sharing and Analysis Center	State	State PH	Vet	Liaison	Secret	Yes
Maryland Coordination and Analysis Center	State	State PH	MD	Part	Unknown	Unknown
Pennsylvania Criminal Intelligence Center	State	State PH	RN	Part	Secret	Yes
Kansas City, MO	TEWG	Local PH	RN	Unknown	None	Some
East Bay TEWG	TEWG	EMS	EMT-P, and RN	Part	None	TLO (40 hour)
Los Angeles TEW	TEWG	County PH	RN	Part	Secret	Unknown

D. FUSION CENTERS WITHOUT MEDICAL/HEALTH REPRESENTATION

Only twelve fusion centers returned surveys stating they have no medical and health representation. Telephone interviews were conducted with some fusion centers that did not return a completed survey. Each phone interview confirmed there was no medical or health representation within their fusion center. Web searches were conducted examining various fusion centers. Fusion center web sites generally showed their membership organizations and most showed no medical or health agencies as part of their network.

At all levels of government, the majority of fusion centers are managed and staffed solely by members of law enforcement. A multi-disciplinary approach has only been embraced by a few state fusion centers and local TEWGs. Since fusion centers evolved from law enforcement inter-agency sharing efforts, it is reasonable that law enforcement agencies form the primary management.

At the time of the research, a few state fusion centers and local TEWGs without medical or health representation were considering the addition of public safety members to their centers. When asked how the fusion center procures medical information without such members on staff, these centers responded that they have telephone contact with public health in their local area.

Sometimes, law enforcement is hesitant to include “non-sworn” members into an intelligence fusion center. Historically, the medical community has had limited involvement in terrorism prevention, preparedness and intelligence analysis. The primary drivers of anti-terrorist intelligence efforts are law enforcement agencies; occasionally, they are resistant to changing that dynamic. Even though literature on the subject clearly shows broad support and strong recommendations for the inclusion of other public safety members in counter-terrorism intelligence fusion centers, the level of multi-discipline collaboration is far from adequate.

The lack of interdisciplinary collaboration and cooperation could have many reasons. For instance, a markedly different institutional culture is found in

the law enforcement realm versus the medical field. Another obstacle to cooperation has been the lack of government security clearances to non-law enforcement individuals. Staffing costs are another impediment. The cost of personnel time may be a challenge to appointing a medical representative to law enforcement and intelligence centers. Hence, the healthcare community has typically been a consumer of only publicly available intelligence alerts.

Members of the medical and health community can also be reluctant to become involved in the intelligence process. To many, collaboration with intelligence seems secondary to their primary healthcare mission. In one particular case, public health was asked to become a partner in a state fusion center and they chose not to participate.³¹ The exact reason for this is unclear; the fusion center, not the public health department in question, was interviewed for this research.

³¹ Survey result from the Illinois State Counter Terrorism Center, January 2007.

Table 2. Fusion Centers with No Medical/Health Representation

Fusion Center	Type	Attempt to add medical?	Plans/ talks to add medical?	Current medical information procurement?
Alabama Criminal	State	No	Possible	UNK
California State Terrorism Threat Assessment	State	No	Yes, eventually	Phone/reach back to PH/EMSA
Florida Counter Terrorism Intelligence	State	No	No	Law enforcement only
Illinois State Terrorism Information	State	Yes, PH chose not to join	Yes	Phone reach back to state PH
South Carolina Fusion Center	State	No	No	Phone contacts with PH
Boston, MA FBI JTTF	JTTF	No	Possible	Unknown
Los Angeles, CA FBI JTTF	JTTF	No	No	JRIC
Atlanta, GA FBI JTTF	JTTF	No	No	Georgia State Fusion Center
Portland, OR FBI JTTF	JTTF	No	No	Unknown
Pittsburg, PA FBI JTTF	JTTF	No	No	Unknown
Rockland County Intelligence (NY)	TEWG	No	No	County PH
City of New Orleans TEW	TEWG	No	No	Fire department

IV. FUSION CENTER MODELS

A. FEDERAL AND NATIONAL MODELS

For the purpose of this research, the scope of intelligence fusion centers will include a “convenience sampling”³² of military, federal, state and local fusion centers. The FBI Joint Terrorism Task Force, several state fusion centers and a number of local Terrorism Early Warning Groups are investigated and discussed. Many of these groups have full-time local, multi-agency, law enforcement partnerships working collaboratively to fight terrorism. A few have non-law enforcement public safety members as part of their staff.

1. Department of Homeland Security

The United States Department of Homeland Security (DHS), under the direction of Secretary Michael Chertoff, realized the importance of having a full-time medical presence at the highest level. In July 2005, Dr. Jeffery W. Runge was appointed as the first Chief Medical Officer for the DHS. In January 2007, the Office of the Chief Medical Officer was moved to the Office of Health Affairs in a restructuring of FEMA and DHS. The responsibilities of this position include bio-defense activity coordination, pandemic flu preparedness and uniting the national approach to medical planning and response. The Chief Medical Officer is the principle liaison to several organizations, including the Veterans Administration, state and local public health departments, the private medical sector and the Department of Health and Human Services.³³ This important position highlights the concept that professional medical guidance is central to the response to terrorist and natural disaster.

³² The sampling was mostly based on publicly available contact information and web searches, as well as personal contacts.

³³ U.S. Department of Homeland Security, “Office of the Chief Medical Officer,” *U.S. Department of Homeland Security*, http://www.dhs.gov/xabout/structure/editorial_0880.shtm (accessed 1/12/07).

2. Military Medical Intelligence

The military has a long history of integrated medical intelligence. In fact, the Armed Forces Medical Intelligence Center (AFMIC) may prove a worthy model for FBI JTTF and state and local fusion centers to consider. Much of the AFMIC military focus can be translated into law enforcement intelligence counter-terrorism missions.

As part of the Defense Intelligence Agency (DIA), the AFMIC monitors global health issues for the Department of Defense (DOD).³⁴ This important mission is focused on global health issues, worldwide infectious disease trends, radiological, biological and chemical weapons and the medical implications of weapons of mass destruction.

The AFMIC alerts military operations customers and policymakers on issues that affect national security and homeland defense. They support the global war on terror (GWOT) by providing environmental and medical capability intelligence, as well as predictive models of the medical response to WMD in military conflict areas. AFMIC has a secure website with international medical information and is planning to provide up-to-date instant alert functions via email in the near future.³⁵

This comprehensive intelligence mission has vast experience; it, therefore, offers a successful model for domestic intelligence centers, including the FBI JTTF, state fusion centers and local TEWGs, as well as others involved in anti-terrorism efforts. The AFMIC's notification system for communication with its constituents is remarkable. It should also be considered as a model for fusion centers. The institution of a "medical wing" in fusion centers would benefit by

³⁴ Lynn McNamee, "The Armed Forces Medical Intelligence Center," *Military Medical Technology* (2006), http://www.military-medical-technology.com/print_article.cfm?DocID=703 (accessed 1/8/07).

³⁵ McNamee 2006.

providing a focus on global and national medical issues and trends, as well as keeping abreast of medical technology and developments that may help in anti-terrorism efforts.

3. FBI Joint Terrorism Task Force (JTTF)

The FBI has found that by reaching out and including local, state and other federal law enforcement agencies “under one roof”, they are better able to have a successful anti-terrorism program. The information exchange within JTTFs maximizes interagency coordination to create a cohesive strategy to combat the threat of terrorism.

The first JTTF was established in New York City in 1980. Now, there are 56 JTTFs in the United States. Throughout the country, each FBI Field Office has an active JTTF within its jurisdictional area. The national mission of the JTTF is to “organize federal, state and local law enforcement agencies in a coordinated manner for the purpose of detecting, preventing and responding to domestic and international terrorist organizations and/or individuals who may threaten or attack United States citizens or interests abroad or conduct criminal activity within the United States.”³⁶

The San Francisco FBI JTTF has a successful outreach program that began in 1997. Currently, it is composed of 26 federal, state and local agencies. This JTTF is particularly well-equipped to do its job because it integrates national and international intelligence resources with state and local law enforcement street expertise and experience.

Their wide range of participants includes the following federal agencies: the Bureau of Alcohol, Tobacco and Firearms, the Drug Enforcement Administration, the Federal Aviation Administration, the Federal Bureau of Investigation, the Federal Protective Service, the Immigration and Naturalization

³⁶ Nevada Emergency Operations and Notification Network, <http://www.neonn.org/index.cfm/MenuItemID/224.htm> (accessed 1/15/07).

Service, the Internal Revenue Service, the United States Coast Guard, the United States Department of State, the United States Department of Treasury, the United States Marshal's Service, the United States Customs Service, the United States Office of Export Enforcement, the United States Postal Service, and the United States Secret Service. Local agencies include the Alameda County Sheriff's Department, California Department of Justice, the California Highway Patrol, the Contra Costa County Sheriff's Department, the Oakland Police Department, the San Jose Police Department, the San Francisco Police Department, the San Mateo County Sheriff's Department, the Santa Clara County District Attorney's Office and the Santa Clara County Sheriff's Department.³⁷

Most Bay Area JTTF members have full or part-time assignments from their respective agencies to the FBI JTTF offices in Oakland, San Francisco or San Jose.

Historically, the 56 JTTFs nationwide have been composed of law enforcement agencies responsible to the local geographical area. However, prevention, mitigation and response to terrorist attack reach far beyond the boundaries of the law enforcement community. Within the San Francisco JTTF, there has been an increased awareness that the emergency medical response community, including EMS, haz-mat teams, hospitals and public health department are key partners in both preparing for and responding to a terrorist event.³⁸

The San Francisco FBI JTTF is one of few JTTFs that have a medical representative. The representative is on a part-time assignment, averaging one day a week. He reports directly to the FBI Weapons of Mass Destruction (WMD) Coordinator. Responsibilities include liaising the JTTF to the greater San

³⁷ Larry A. Mefford, "Congressional Testimony of Associate Special Agent in Charge, San Francisco Division, FBI," *Terrorism Preparedness* (2002).
<http://www.fbi.gov/congress/congress02/mefford040202.htm> (accessed 12/02/06).

³⁸ Special Agent Vincent Lucero, FBI San Francisco WMD Coordinator and JTTF Supervisor, interviews with author, Oakland, CA, June–September 2005.

Francisco Bay Area EMS, fire, public health and hospital community. Other duties include coordinating FBI responsibilities with environmental, law enforcement, military and the public health and medical communities on projects including, but not limited to, the following:³⁹

BIOWATCH- Covertly located air “sniffing” filters checked daily to detect several biological agents throughout the San Francisco Bay Area.

CHEMPACK- Nerve agent antidote caches strategically located in hospitals, fire departments and other strategic areas.

Strategic National Stockpile (SNS)- Center for Disease Control assets including “push pack” stockpiles of medical supplies, drugs and antidotes deployable on short notice.

RAD-NET- Dozens of fixed radiological detectors giving real-time radiological monitoring and warnings throughout Bay area.

SNIFFER- Deployable “real-time” chemical, WMD and hazardous materials detectors for special events and strategic locations.

National Guard Civil Support Team (CST)- Liaison with specialized National Guard unit that have significant WMD response capabilities.

Radiological Assistance Program (RAP)- Work with federal teams on radiological disaster planning and response.

FBI Hazardous Materials Response Unit (HMRU)- Work with this specialized team for deployments in support of FBI operations.

The use of a medical and health JTTF member is recognized as a significant benefit for the San Francisco FBI. Many members of the medical, fire service and general emergency management community have made positive comments about the forward vision of the FBI for such inclusion. FBI and DHS unclassified bulletins of interest to the medical community are routinely disseminated without delay because of this new relationship. The FBI has become aware of the specialized medical assets in the community of which they

³⁹ Specific details of programs, locations and responsible agencies have been omitted for security purposes.

were previously unaware. Trusting relationships have been built between the FBI and many public safety disciplines because of this endeavor.

B. STATE INTELLIGENCE FUSION CENTERS

1. Overview

States are increasingly creating intelligence fusion centers that consolidate multiple law enforcement and counter-terrorism agencies. In August 2005, the National Governors Association Center for Best Practices survey ranked the creation of state intelligence fusion centers as the Governors' second highest priority.⁴⁰ The joint publication from the Department of Justice and Department of Homeland Security, *Fusion Center Guidelines*, serves as a template for organizing fusion centers at the state, local and federal levels.

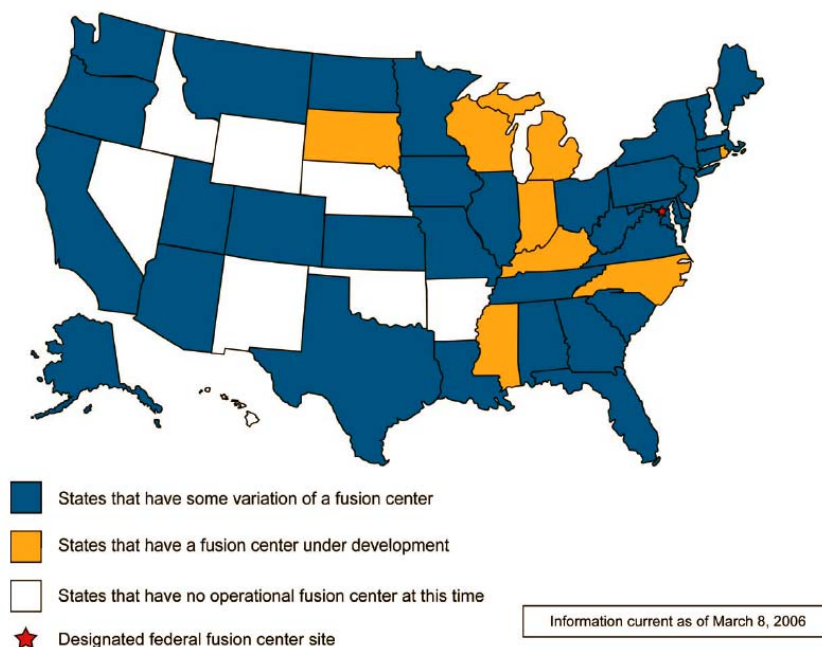
However, there are major differences in the organization of each fusion center. Some state fusion centers have representatives from emergency management, fire, rescue and emergency medical services, but most do not. Only a few state fusion centers have representation from the state public health department. The following map shows the status of states that had at least some kind of fusion center as of March 2006.

⁴⁰ United States Department of Justice, "Executive Summary: Fusion Center Guidelines" (2006), http://www.iir.com/global/products/fusion_center_executive_summary.pdf (accessed 2/2/07).

Figure 1. Fusion Center Summary ⁴¹

A Summary of State or Regional Intelligence Fusion Centers

The following map depicts states that have some variation of a fusion center, either operational or under development.



2. California State Terrorism Threat Assessment Center

In California, the State Terrorism Threat Assessment Center (STTAC) is a state fusion center including members from the California Department of Justice, the California Highway Patrol and the California Office of Homeland Security (OHS). The STTAC provides California's law enforcement and homeland security members with real-time situational awareness of identified threats and coordination within the critical infrastructure of the state.

Senior members of STTAC were approached by the California Emergency Medical Services Authority (EMSA) in 2005 to inquire if the STTAC would be interested in having an EMSA representative as part of the center. There was initial approval for this endeavor. As a show of support, the California Office of

⁴¹ National Criminal Intelligence Resource Center, "State and Regional Intelligence Fusion Center Contact Information," <http://www.fas.org/irp/agency/ise/state.pdf> (accessed 1/29/07).

Homeland Security awarded a \$622,000 grant over a two-year period to the California Emergency Medical Services Authority for staffing and expenses to support EMSA as full partner within the STTAC. However, much to the consternation of EMSA and the medical community they represent, the STTAC senior management decided that STTAC would be a law enforcement only group for the time being.⁴²

According to an STTAC representative, the lack of medical or health representation is only a temporary situation and they have all intentions to involve EMSA at a later date. Apparently, the STTAC is in the early phase of development and plans on expanding to include emergency medical agency representation at some point.⁴³ This is not an isolated case. Several other state fusion centers have been initially hesitant to incorporate non-law enforcement members into their center.

3. Arizona Counter Terrorism Information Center

The Arizona Counter Terrorism Information Center (ACTIC) is a full-time fusion center operating 24 hours a day, 7 days a week. It maintains an all-crimes approach to terrorism prevention and response. The ACTIC uses cross-jurisdictional partnerships that integrate local, state and federal law enforcement, first responders, public health, emergency management and the private sector. The center shares space with the FBI JTTF and the FBI's Field Intelligence Group (FIG).

The Terrorism Liaison Officer (TLO) Program Coordinator for ACTIC is a firefighter and paramedic by training. He is assigned full-time to the center.⁴⁴

⁴² Dan Smiley, Chief Deputy Director, California Emergency Medical Services Authority, interview with author, December 22, 2006.

⁴³ Kathryn Grant, Consultant, California State Terrorism Threat Assessment Center, interview with author, December 22, 2006.

⁴⁴ Richard Salyers, TLO Program Coordinator, Arizona Counter Terrorism Information Center, interview with author, December 27, 2006.

Within the TLO program, there are several “levels” of members, all of whom must complete a basic, forty-hour TLO training. The highest level TLO is designated Level-A; the second is Level-B.

A Level-A TLO receives a Secret security clearance from the FBI. Level-A TLOs are assigned to the ACTIC for forty hours a month. They are provided equipment such as vehicles, communication suites, WMD detectors and personal protective equipment. In the event of a disaster, Level-A TLOs are deployed to the scene to give the ACTIC live situational and tactical awareness. In turn, the Level-A TLOs are given terrorism-related information, briefings and bulletins. They are encouraged to share unclassified, or “public safety sensitive” reports with their respective agencies and disciplines on an as-needed or need-to-know basis. The top Level-A TLO includes a public health representative.

Level-B TLOs are assigned to the ACTIC duties for only half the hours as Level-A TLOs. They have fewer responsibilities and a lesser security clearance.

The ACTIC model of a fusion center is consistently well-regarded in the literature. It is often referred to as a truly multi-disciplinary, multi-agency center. It is respected for its thorough integration of diverse fields.

C. LOCAL TERRORISM EARLY WARNING GROUPS

1. Overview

Terrorism Early Warning Groups (TEWG)⁴⁵ are becoming more common in urban areas. Federal Urban Area Security Initiative (UASI) grants have been issued to support local anti-terrorism initiatives. There are now more than thirty urban areas receiving funds to support a local TEWG. The Terrorism Research Center published a paper stating that a well-functioning TEWG should meet the

⁴⁵ Terrorism Early Warning Group is one name given to this kind of organization. They are often referred to as Terrorism Working Groups, Local Intelligence Fusion Centers, Interagency Intelligence Analysis Centers or Terrorism Threat Assessment Centers.

requirements of the National Preparedness Goals. TEWGs in operation today meet most of the requirements in Homeland Security Presidential Directive -8 (HSPD-8).⁴⁶

Typically, TEWGs are coordinated by local or county law enforcement agencies. TEWGs strive to identify potential terrorist threats and disseminate information and warnings to their constituents and Terrorism Liaison Officers. They support prevention, response and recovery efforts and mitigate terrorist threats at the local, regional and national levels.

TEWGs pride themselves on being flexible and modular, reflecting the diverse communities and geographies they represent. Some TEWGs offer incident management support, operational net assessment, and real-time intelligence support to the Incident Commander or an Emergency Operations Center.

2. East Bay Terrorism Early Warning Group

The East Bay Terrorism Early Warning Group (EBTEWG) is a joint endeavor involving the City of Oakland and the Counties of Alameda and Contra Costa in California. Funded mostly by the Urban Area Security Initiative (UASI) grant process, this center has five full-time staff members. The team consists of a TEWG Coordinator, two law enforcement officers, an intelligence analyst and a firefighter who also acts as an analyst. The mission of the EBTEWG is, “to provide regional command (and infrastructure) components with situational awareness for terror incident management and to facilitate appropriate responses across all levels of government and private sector critical assets.”⁴⁷

⁴⁶ Ed Reed et al., “Utilizing Terrorism Early Warning Groups to Meet the National Preparedness Goals,” *Terrorism Research Center* (2005).

⁴⁷ East Bay Terrorism Early Warning Group, “Mission Statement” (2007), <http://www.eastbaytewg.org> (accessed 2/03/07).

Liaison membership of the EBTEWG includes representatives from public safety disciplines including fire departments, EMS, public works, environmental health, hospitals, transportation and emergency management. This group makes up the Terrorism Liaison Officer outreach program as part of the EBTEWG.

Its regular medical representatives are a paramedic and a nurse. The paramedic, from Alameda County EMS, is the WMD Preparedness Coordinator. The nurse, from Contra Costa County, is the Regional Disaster Medical Health Specialist (RDMHS). Both members are available on an as-needed basis for questions and advice. They average one day a month with the EBTEWG staff. Both members work with hospitals, EMS, public health and others in the medical health community to offer education related to terrorism and to encourage participation in the TLO Program.

There are currently plans underway to add two more TEWGs in the San Francisco Bay area. One, planned for the West Bay, will serve the San Francisco area. The other, to be in the South Bay, will serve the San Jose area. Plans are in place for a part-time medical/health representative for each.

3. Joint Regional Intelligence Center of Los Angeles (JRIC)

The Los Angeles JRIC is an integrated terrorism and criminal intelligence fusion center. It is the only model examined that has all elements of a local TEWG, a state fusion center and an FBI JTTF operating under one roof. They work around the clock producing and disseminating threat summaries and bulletins to public and private sector agencies with public safety responsibilities.

Managed by the FBI, the JRIC has participants from local (Los Angeles Police and Sheriff's Department, the local TEWG) and state law enforcement (CA Department of Justice, the Regional Terrorism Threat Assessment Center (RTTAC)). Their medical representative is a public health nurse from Los Angeles County. He is assigned to the JRIC on a full-time basis and possesses a Secret level security clearance. At the time of writing, Top Secret clearance was in

progress. He has received training in joint investigation and intelligence analysis. The arrangement has been highly functional; according to the local FBI WMD Coordinator, “he is an asset and a critical part of the FBI WMD Intelligence Program.”⁴⁸

D. TERRORISM LIAISON OFFICER PROGRAM (TLO)

The Terrorism Liaison Officer Program is a state-wide effort in California and is being developed in several other states. The TLO mission is to develop a network of trained, coordinated first responders in various disciplines to function as the local eyes and ears in the war on terrorism. TLOs operate within the framework of a local TEWG or state fusion center and assist in intelligence collection. They assist information dissemination to the various disciplines they represent.

TLO programs mirror some of the concepts of community-oriented policing. Because TLOs work in fields ranging from law enforcement, to firefighting, emergency medicine and public health, their official duties immerse them in the local populous on a regular basis. Their job placement may increase the likelihood of detecting possible terrorist planning activities. This “force multiplier” augments the existing resources and efforts, and encompasses non-law enforcement disciplines.

TLO training includes developing skills for recognizing possible indicators of terrorist support groups and planning activities. In California, the TLO program includes forty hours of training. TLOs access a secure TEWG website to maintain membership communication as well as report tips and leads. The TLO network meets with its associated TEWG on a regular basis, for training, updates and networking.

⁴⁸ Kristine A. Beardsley, FBI Special Agent and WMD Coordinator, interview by author, December 12, 2006.

When suspicious activities are not reported to the local police or the FBI's JTTF, they may be reported to the local TEWG. In the TEWG, tips and leads are analyzed and passed on to the FBI's JTTF.

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V. PROPOSED VISION OF MEDICAL/HEALTH REPRESENTATION IN FUSION CENTERS.

Any change, even a change for the better, is always accompanied by drawbacks and discomforts.

– Enoch Arnold Bennett

A. IMPORTANCE OF THE VISION

The inclusion of medical representatives on FBI JTTFs, state fusion centers, TEWG and TLO programs is crucial. In the fight against terrorism, law enforcement efforts alone consist of only part of the solution. Response to a terrorist attack requires the coordinated efforts of many public safety disciplines. If these disciplines have been collaborating already through the fusion center process, then positive dynamics formed during the daily routing would carry over in times of crisis.

Public safety agents can bring important information to fusion centers, especially in sharing intelligence about suspicious criminal activity, disease trends, local drug activity, prescription drug fraud and epidemiological investigations. It is critical for medical agencies to be included in the information network for warnings, alerts and reports on activities that may impact emergency medical and public health services directly.

Public sentiment is backed by numerous post-9/11 governmental reports, all indicating a widespread call for better inter-agency coordination.^{49, 50} Catastrophic event preparedness must include a medical element if response is to be complete and effective. In the event of bioterrorist or other WMD attack, the medical community would have close working relationships with law enforcement and other anti-terrorism agencies. The 'unified command' concept that is

⁴⁹ Butler 2002.

⁵⁰ Hamilton 2004.

stressed in the fusion center model should bring together all of the key disciplines with responsibilities for the care and wellbeing of the public. Strong working relationships between medical professionals and law enforcement has helped in epidemiological investigations as well as criminal investigations. This was demonstrated during the anthrax attacks of 2001 when medical and criminal investigators worked together.⁵¹

Even those who believe that further terrorist attacks are unlikely on American soil recognize the importance of integrated emergency response preparation. Interagency cooperation is valuable in preparation for non-terrorist disasters as well. Cross-discipline trainings and exercises facilitated through the fusion center process will help in general disaster preparedness and response efforts.

There are substantial terrorism response plans for emergency response agencies. However, EMS and the larger medical community have not yet embraced prevention efforts as germane to their mission. The fusion center process can facilitate terrorism prevention strategies with the medical and health community using such vehicles as the Terrorism Liaison Officer Program.

1. Hypothetical Medical Scenarios

Much like police detective work, medical practitioners interview patients, witnesses, family members and others to gain information about a medical situation. At times, a patient's account of what happened does not coincide with the medical presentation. There are many possible reasons this can occur. Inconsistent stories can be told in cases of embarrassing situations, confusion or criminal activity. Medical practitioners develop skills to help them determine the accuracy and honesty of those being interviewed. This skill could also be employed in identifying criminal or terrorism planning activities.

⁵¹ Butler 2002.

The following three hypothetical scenarios should cause a medical practitioner to become curious, if not suspicious. While these cases may not necessarily rise to the level of calling 911, they may be suspicious enough to warrant exploration by an official.

Scenario 1: During a home “healthy baby program” visit, a public health nurse notices a closet full of emergency responder uniforms (police, fire, EMS). She is certain that no one in the family is an emergency responder. She vaguely remembers reading in the newspaper about individuals stealing public safety uniforms to gain access to emergency sites.

Scenario 2: EMS is called to the scene of an individual with burns to his hands. He claims the burns are from spilling hot water, but upon close inspection, the burn pattern resembles those associated with a chemical blister agent, not scalding.

Scenario 3: A patient in the Emergency Department has diarrhea, nausea, vomiting, hair loss and general malaise. All tests for bacterial and viral infection are negative. There is no indication of chemotherapy or radiation treatment. The Emergency Department physician questions the patient about exposure to radiation. The patient is very nervous and denies any connection to a radiation source.

These cases illustrate a few ways in which the integration of medical professionals into the intelligence fusion process may benefit the war on terrorism. None of the above scenarios requires reporting to the authorities. There is no conclusive data to support that laws have been broken. In fact, all three scenarios may have plausible, legal explanations.

If medical personnel have been trained in terrorism precursor recognition and are part of a Terrorism Liaison Officer Program, then situations such as those described above would be more likely to be reported into a local fusion center for further analysis and follow up.

2. Relationship Building Prior to a Catastrophic Event

During the disaster is a bad time to be handing out business cards.

– Anonymous

There are numerous examples of crisis situations that were successfully mitigated, at least partially attributed to the good working relationships of those involved. Multi-agency and multi-discipline training and exercises facilitate a working relationship that should translate into operational applications. Task Forces, working groups and intelligence fusion centers provide a forum for professional relationships to develop.

The multi-agency, multi-discipline response to the Pentagon attack on 9/11 was generally viewed as successful, according to the official After Action Report.⁵² Members of the responding agencies had a history of joint planning, interagency coordination and mutual aid experience. They also had what may be viewed as the most important asset of all: good personal relationships. The FBI, Pentagon officials, medical responders, fire departments and local law enforcement had cultivated formal and informal relationships over years. This led to a natural development of mutual understanding between them. Moreover, there was a useful comprehension of what other disciplines offered in crisis. Unfortunately, such an example of good working relationships and mutual respect is not present in many communities.

Longstanding animosity and competition between agencies has been an obstacle to successful integration in some cases. Conflicts may exist between local, state and federal law enforcement agencies. Fire departments and law enforcement traditionally have had inter-agency relationship problems. Prior to 9/11, intelligence and law enforcement conflicts and lack of communication were a marked problem.

⁵² George Washington University, "Response Actions to the Attack on Pentagon- General Observations," *Institute for Crisis, Disaster and Risk Management* (2002). <http://www.gwu.edu/~icdrm/publications/nsf911/response.html> (accessed 11/15/06).

State fusion centers, local TEWGs and FBI JTTFs are excellent opportunities to diminish interagency conflicts while increasing effectiveness for the public good. When members work directly with representatives from other disciplines toward a common goal, greater acceptance and trust naturally accrues.

3. Information Dissemination to the Medical and Health Community

State fusion centers, TEWGs and FBI JTTFs should provide intelligence information, reports, warning and alerts to the medical and health communities in a timely manner. This would allow for protective action to be taken for the benefit of associated facilities, patients, staff and public safety representatives. Hospitals, EMS and the public health system can increase their capacity to manage a surge of patients, but it takes time. The more time the medical community has to prepare, the more lives can be saved.

Intelligence about early phase terrorist planning activities should be given to medical representatives. Their expertise should be utilized in such cases. For example, if an intelligence fusion center had information about an attempt to develop a radiological dispersion device, or “dirty bomb”, medical representatives could assist by increasing security on medical radio-isotopes. The medical facilities could then notify physicians to be alert to patients exhibiting burns or sickness related to radiation exposure. The medical community could also monitor requests, purchases or theft of anti-radiation medicines. This kind of interaction between law enforcement and the medical community is almost non-existent today.

Most medical representatives are recipients of several health discipline information streams such as list serves, publications and news bulletins. Most law enforcement members know little or nothing about this open source medical intelligence. Some of these bulletins are worthy of widened dissemination and

further analysis. This information should be filtered, brought into the fusion center for analysis and then further disseminated when necessary.

A recent noteworthy issue has been fraudulent and suspicious hospital inspectors. Some have pretended to be from the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). There have been dozens of cases over the last few years reported to JCAHO and the FBI. In 2004, fifteen hospitals in Illinois reported suspicious incidents pertaining to hospital security, bioterrorism preparedness and staffing questions. Through its network of JTTFs, the FBI and Department of Homeland Security found a national pattern emerging that warranted the creation and release of an unclassified/for official use only (FOUO) informational bulletin in April, 2005. This was disseminated to many, but not all, healthcare organizations. This kind of important information would be more likely to get to the medical community in a timely manner if there was a medical and health representative in the respective FBI JTTFs and fusion centers.

4. Medical Expertise within Intelligence Fusion Centers

Having a medical expert available within the fusion center should facilitate better information dissemination and communication with the medical community, but there other benefits as well. There are many situations where medically related issues are relevant to investigations, such as with chemical or biological terrorist agents. It would be advantageous to have a medical expert readily available.

There are several models of medical involvement within the intelligence community. At FBI headquarters in Washington, DC, there is now a Center for Disease Control (CDC) physician assigned in a full-time capacity.⁵³ His role is

⁵³ Butler 2002.

two-fold: to liaise with the greater medical community and to give advice on matters of communicable disease and biological agents.⁵⁴

The Department of Homeland Security now has a Chief Medical Officer. In addition to giving the Director of Homeland Security medically specific advice, he is responsible for coordinating biodefense activities, pandemic flu planning and insuring a unified approach to medical planning and response.⁵⁵

A few state fusion centers have medical reach-back capacity by having a contact within a state health department. If the health department individual is available, fusion centers can get medically related questions answered. This is not an ideal situation as it relies on phone calls and indeterminate availability. Some TEWGs have liaison officer positions filled from the medical disciplines as part of their staff. These people may be able to answer questions or make opinions on intelligence matters from a medical perspective.

Emergency medical field personnel, who are members of a fusion center can provide information that could help the fusion center get accurate situational and tactical awareness. If a potential terrorist threatened a planned public event, public safety officials could augment law enforcement assets. For instance, at sporting events, festivals, and demonstrations, vetted public safety members could be used as a “force multiplier” to provide more eyes on the ground. This would help funnel accurate strategic and tactical information from the field to fusion centers.

B. MEDICAL DISCIPLINE REPRESENTATION IN INTELLIGENCE FUSION CENTERS

The placement of a medical representative in a fusion center requires careful selection. The job requires more from a candidate than a medical background alone. Medical orientation, perspective and biases are just a few of

⁵⁴ Butler 2002.

⁵⁵ U.S. Department of Homeland Security, Office of the Chief Medical Officer, http://www.dhs.gov/xabout/structure/editorial_0880.shtm (accessed 1/10/07).

the many factors that should be considered in the selection process when implementing an effective model of medical inclusion.

This section will describe the general categories within the overall medical community. Strengths, limitations and appropriateness will be discussed according to medical discipline. Applicability to the fusion center process will be reviewed.

1. Public Health

Public health has only recently been viewed as an important partner with law enforcement in the field of homeland security. As homeland security and emergency management have evolved, many public health officials have been left out. However, the anthrax attacks of 2001 and the ongoing threat of bioterrorism is quickly changing the relationship between public health and homeland security officials.

The authority of public health is becoming recognized as an integral part of homeland security preparedness. It claims unique capabilities in terms of quarantine, disease surveillance, infectious disease knowledge and mass prophylaxis authority. In most states, it is public health that has the power to close businesses, enforce medical treatment regimes and issue quarantine and isolation orders related to disease control.

However, a culture clash exists between public health and other emergency response disciplines. Public health officials usually work in controlled, respectful circles, often having the luxury of taking the time to make decisions with careful consideration to all options, striving for congenial consensus whenever possible. Critical time pressure is usually not an issue. This has caused problems, especially in crisis situations.

During the 2000 TOPOFF federal exercise simulating a mass outbreak of *Yersina Pestis*, or pneumonic plague, observers noted that public health officials seemed paralyzed and unable to make critical decisions with less than ideal

intelligence. One observer commented, “The time frame that public health is accustomed to dealing with is not what is needed for bioterrorism [response].”⁵⁶

Public health has only recently become engaged in emergency management, chain of command appreciation and the incident command system. The learning curve for public health involvement in emergency management is steep and it will not be long before they are prepared to fully engage in terrorism prevention and response efforts.

However, some public health members may not be in favor of involvement in a fusion center or Terrorism Liaison Officer Program. Integrated terrorism prevention efforts require sharing information that was not typically practiced in the past. The role of the public health department is to insure the health and wellbeing of the community, not supply law enforcement with information.

Many of the recipients of basic public health services are low income families living with low levels of employment and high levels of crime. Drug addiction, alcoholism and sexually transmitted diseases are just a few health issues that public health addresses on a daily basis. As such, the goals of public health often conflict with those of law enforcement.

Historically, public health departments have been reluctant to report minor criminal activity or the immigration status of its constituents. Patients with criminal backgrounds are hesitant to seek care from public health if they are in jeopardy of being reported to law enforcement. Therefore, public health and others in the medical community may not perceive their role as that of general crime-reducing efforts, much less terrorism prevention.

⁵⁶ T.V. Inglesby et al., “A Plague on Your City: Observations from TOPOFF,” *Journal of Clinical Infectious Diseases* 32 (2001).

2. Emergency Medical Services

Emergency Medical Services work in the community with the sick and injured as a matter of course. As such, it may be a good source of qualified medical individuals to include in fusion centers since they already work with law enforcement on a regular basis.

Paramedics and Emergency Medical Technicians (EMT) are considered generalists; they possess a good understanding of general medical knowledge on a wide range of topics. They are trained to excel under stress. EMS personnel work in chaotic and dangerous environments: crime scenes, major accidents and catastrophic events with mass casualties. Because of their close contact with hospital emergency departments, public health, fire departments and law enforcement, they tend to have good working relationships with these agencies.

Many large EMS agencies have a Disaster Preparedness Coordinator or Terrorism and WMD medical educator as part of their managerial staff. This type of individual may have the right mix of skills to fill the medical health representative position on a fusion center.

3. Other Medical Disciplines

Many qualifications must be considered when selecting a health representative for a fusion center. Background, education and training are a few.

Medical disciplines other than those described above should be considered for involvement in fusion centers. A regional hospital group representative may be a good candidate because their skills are appropriate to a Terrorism Liaison Officer Program.

Experience such as prior military, law enforcement, hazardous materials and/or WMD expertise would also be applicable. Of course, an advanced degree in Homeland Security, Security Studies or related fields such as International Relations should be strongly considered in the process of selection.

The surveys show that representatives from several medical disciplines have been successfully integrated into fusion centers. Medical disciplines vary in their orientation and perspective, and this should be considered, along with several other factors in the selection of medical fusion center membership.

C. IMPLEMENTATION DECISIONS AND ISSUES

1. Selection, Vetting and Security Clearances

The selection of a representative from the medical community for an FBI JTTF, state fusion center or local TEWG is a critical decision that should be made with careful consideration. The task carries great responsibilities. This person or group of people would be representing the interests of the greater medical and health community.

The medical representative would offer medical opinions, acting as the “go to guy” for medical and WMD-related terrorism investigations. He would need to know where and how to rapidly gain appropriate information to complete tasks. Therefore, the selected individual must have the respect, trust and support from the greater medical community. He would need to be well-versed in a number of medical disciplines, including Emergency Medical Services operations, public health, epidemiology, hospital emergency medicine, hazardous materials, toxicology and the medical implications of weapons of mass destruction. He must demonstrate a grasp of the National Disaster Medical System (NDMS), the National Response Plan (NRP), the National Incident Management System (NIMS) and many other federal programs related to terrorism and mass casualties.

The role of medical liaison could be created with a middle or senior manager in public health or EMS. A County Health Officer, EMS Director or Director of Public Health may have the knowledge and skills for the job. However, individuals in these positions might find it difficult to commit to the duties and schedule on a regular basis.

The agency that approves and authorizes an individual for these assignments must appreciate the time commitment and importance of the mission. They must realize that some information may be classified as Secret or Top Secret or may be available on a “need-to-know” basis and may not be shared. While this may seem a significant obstacle, most of the information and analysis in fusion centers is based on open source intelligence (OSINT) and can be shared with supervisors and others. After all, one of the major tenants of intelligence fusion center efforts is to share pertinent information, warnings and alerts to the public safety community in a timely manner.

Membership on an FBI JTTF requires that Top Secret clearance be obtained for access to FBI databases, FBI communications equipment and FBI intranet email accounts.

State fusion centers are less consistent on the security clearance issue. Many state fusion center law enforcement members possess a Top Secret clearance, some have Secret and others have none. The Los Angeles TEW co-locates some of its members based on security clearance levels.

2. Liaison, Part-time and Full-time Assignments

A spectrum of options exist medical representative on a taskforce in terms of time commitment, schedule and expectations. Each taskforce, JTTF, fusion center and TEWG has to work out the best system of time management for each respective agency. A full-time assignment may be ideal; however, based on the surveys, it is apparent that most fusion centers have successfully arranged a part-time assignment with their medical and health members.

3. Training and Orientation

One would think that involvement and membership in any of the federal, state or local fusion centers would require a consistent, comprehensive training regime for potential members. However, as illustrated in the fusion center survey results, that is not the case.

In California, the Terrorism Liaison Officer Program has a forty-hour training program prerequisite for TLO membership.⁵⁷ In some cases, no formal training is required. For instance, the San Francisco FBI JTTF membership requires a significant security investigation and a MOU with the member agency, but no formal training is required. A training curriculum should be developed for medical and health representatives within fusion centers. This should be a future research project in and of itself.

4. Patient Confidentiality Issues

Those who work in the medical field are familiar with federal patient confidentiality laws. The Health Insurance Portability and Accounting Act (HIPAA) is the primary law pertaining to this issue. This law and others like it protect the privacy of patients by prohibiting public disclosures that might identify a specific patient's Protected Health Information (PHI). In the medical community, it has been a long-honored tradition to uphold patient privacy without federal legislature mandating such actions. However, some situations legally obligate medical practitioners to report certain diseases and medical conditions to local public health. These include reporting of suspected bioterrorism agents, some communicable diseases, and the vague, but useful category of "occurrence of any unusual disease".⁵⁸

The list of reportable diseases and conditions, as edited in September 2005, does not specifically include nerve agent exposure or its broader category, organophosphate poisoning. Nor does it include other WMD agents such as blister agents (mustard gas), or cyanide. These conditions could, however, be considered an "occurrence of an unusual disease" and should be reported to public health officials.

⁵⁷ The forty-hour TLO training is required for all TLO programs in California and Arizona as of 12/06.

⁵⁸ California Code of Regulations, Title 17, "Reportable Diseases and Conditions," edited 9/05.

Patient medical records and other private medical information is accessible to public health officials and is not subject to general HIPAA rules.⁵⁹ “The HIPAA Privacy Rule recognizes the legitimate need for public health authorities and others responsible for insuring public health and safety to have access to protected health information to carry out their public health mission.”⁶⁰

Public health officials should in turn notify law enforcement if a crime or suspicions justify it. When contacted about this issue, a senior public health official claimed confidence that information would promptly be passed to the FBI in the event of the report of a suspicious illness, especially one indicating a possible terrorist nexus. This would include sharing personal medical information with law enforcement officials.⁶¹

Medical practitioners are required to report suspicions of crimes such as child, elder and domestic abuse. They must also report injuries appearing to be caused by a firearm. However, reporting guidelines are less clear for medical practitioners who suspect possible terrorism. If a paramedic saw canisters of cyanide, a bomb-making book and jihad posters in the garage of a patient’s home, it would only be matter of minutes before law enforcement, bomb squad and a hazardous material team would be on scene. If, however, the paramedic saw a box full of electronic timers and a bomb-making book, the guidance is less clear.

The line between odd and suspicious activities and issues of national security is not clear. Individual judgment determines what information is reported to law enforcement, in the opinion of a former FBI Weapons of Mass Destruction Coordinator.⁶² It is reasonable to suggest that a patient’s PHI is not at risk of

⁵⁹ OCR HIPAA Privacy, “Disclosure for Public Health Activities” (2003), <http://www.hhs.gov/ocr/hipaa/publichealth.pdf.pdf> (accessed 1/12/07).

⁶⁰ Ibid.

⁶¹ Anthony Iton, MD, MPH, JD, Alameda County Public Health Director, County Health Officer, interview with author, January 2, 2007

⁶² Daniel Butler, FBI Supervisory Agent, former San Francisco FBI WMD Coordinator, interview with author, January 3, 2007.

discovery just by the fact that a medic reports a suspicious occurrence in a location the patient was found. In other words, the field medical provider is free to report to law enforcement a suspected crime that has nothing to do with the medical condition the patient presents. It would be analogous to an EMS team discovering a methamphetamine lab on the premises of the victim they were called to treat.

There may still be potential issues regarding the sharing of personal medical information with law enforcement. Legal counsel should be consulted and legislation may need to be created to address this issue.

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VI. SOLUTIONS

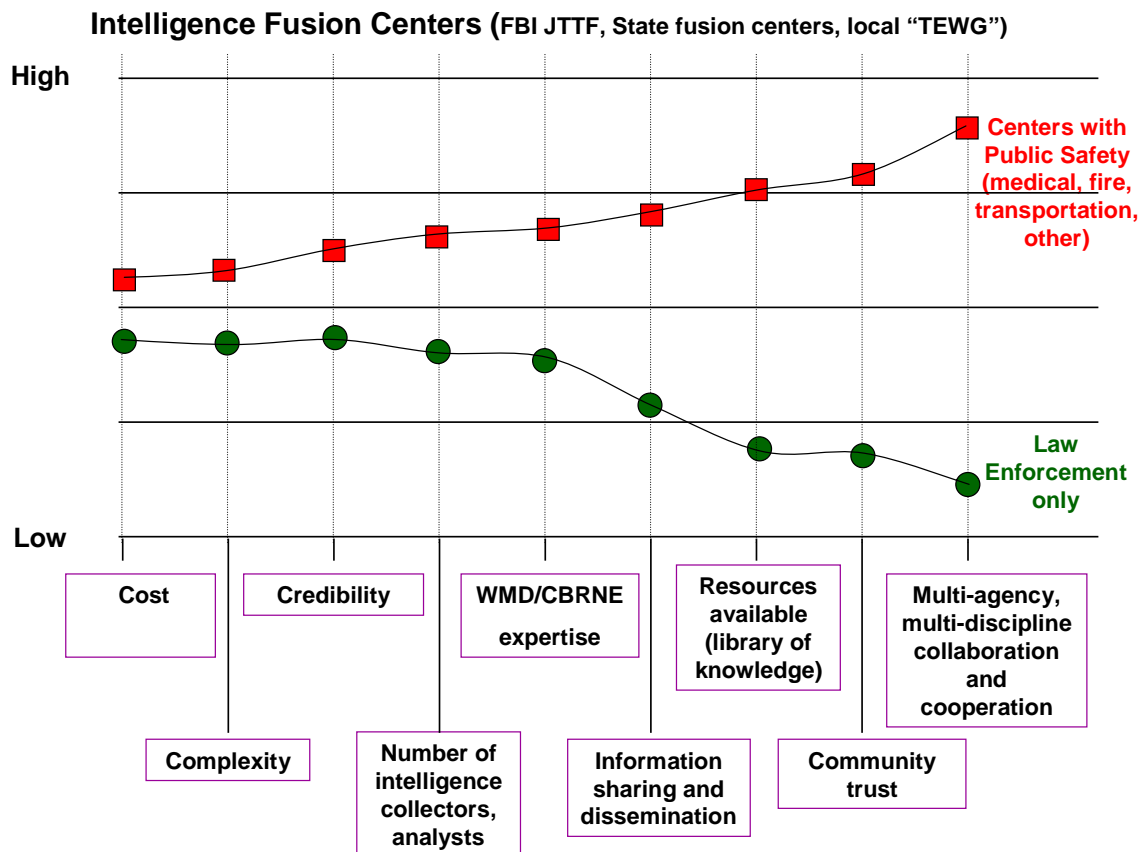
We should not only use the brains we have, but all that we can borrow.

– Thomas Woodrow Wilson

A. GENERAL FINDINGS

Intelligence fusion centers at all levels of government would be enhanced with the inclusion of public safety representation. The strategy canvas below (Figure 4) shows in graphic form that public safety members bring value in many important areas compared to current law enforcement-only fusion center models.

Figure 2. Strategy Canvas comparing intelligence fusion centers with and without the inclusion of non-law enforcement public safety disciplines



There are various options for creating an effective, new policy for healthcare representation in the FBI's Joint Terrorism Task Force, state intelligence fusion centers, Terrorism Early Warning Groups and Terrorism Liaison Officer Programs. Alliances between these groups would mean substantial involvement of the medical community in intelligence analysis and information dissemination. Through the research and analysis process, a cogent model for implementation of these ideas has emerged.

There is little precedent for a broad-sweeping national effort of this kind, even though literature shows support and recommendations for the initiative.

Sporadic efforts at the local level have shown mixed results. The success of integrated programming depends on several factors, not least of which includes the acceptance by the law enforcement-based intelligence centers to have non-law enforcement members involved in their efforts. It should be made clear that some law enforcement officials are extremely hesitant about bringing "non-sworn" disciplines into their fold. Additionally, some medical and health members are not interested in involvement with law enforcement anti-terrorism efforts. It will take significant teamwork and patience to completely integrate the medical and health community into the intelligence fusion process.

B. POLICY OPTIONS AND SUGGESTIONS

This section describes several potential policy options for the integration of medical and health professionals within intelligence fusion centers. Advantages, disadvantages and recommendations of each option are included.

1. Policy Option A

This policy option calls for no official change in the status quo, but encourages ongoing sharing of information through informal channels. Effective, informal relationships between law enforcement and medical entities already exist in many communities. In the case of an eminent threat to a medical facility, for example, it would be assumed, but not mandated, that notifications would go

out to the relevant parties. It would also be assumed that resources would be allocated to protect and support medical facilities.

There are several benefits to this option. First, implementation would be straightforward. Secondly, it would require little or no allocation of additional financial resources. Some actionable intelligence may possibly make it to relevant groups in a timely manner.

Of course, such an unstructured policy has many drawbacks. Without formal relationships governing and securing communication between agencies, there would be no assurance that the medical community would receive meaningful intelligence. In cases of incorrect or incomplete sharing, there would not be accountability. Moreover, since the law enforcement and intelligence communities would have no formal responsibility to share information, judgment of the model's effectiveness would be purely subjective. Evaluations would therefore be based on the input and experiences of both parties. In many ways, this policy option is the status quo, and according to the literature and research, inadequate.

2. Policy Option B

This policy option would require a reorganization of the entire intelligence fusion center concept. It would revamp the makeup of intelligence centers to include multiple representatives from several public safety disciplines, including assorted relevant medical disciplines. For example, individuals would be assigned from hospitals, public health, EMS, the fire service, medical labs and environmental health. These representatives would procure the necessary security clearances to be part of the intelligence program. They would be trained to function as analysts with a specific focus on the discipline they represent.

Several challenges come with the implementation of this scenario. First, it would require far more financial backing in comparison to Policy Option A. Procuring security clearance for a large number of individuals would be time-

consuming and expensive. The cost of personnel time would need to be absorbed by the participating agencies, and those positions would need to be back-filled, adding additional costs.

Aside from practical implementation issues, it would be imperative to bridge differences in culture between the disciplines. Expert medical vantage points may not receive immediate respect by established law enforcement and intelligence members. This may undermine support from the intelligence sector. Power dynamics would shift with the structure of the system with an unknown benefit.

3. Policy Option C

This plan balances Policy Options A and B. Instead of multiple and varied health representatives, only one or two medical/ health representatives would be placed in the intelligence agency or fusion center. This individual would be responsible for bringing the knowledge of the many diverse, health-oriented fields such as EMS, fire, hospital and public health. This option would require the assignment of an experienced and well-respected medical professional with training in intelligence to a pre-existing fusion center.

The duties of this individual would be two-fold. The primary responsibility would be to review and make recommendations on existing data and raw intelligence, giving emphasis to medical and health implications. The other obligation would be to assist in the information flow between intelligence, law enforcement and the medical community, including public health. This person would work with fusion center command staff to determine who would be privy to intelligence information related to terrorism. This person would be involved in the format, content and mechanism for dissemination of messages.

This suggested policy aims to support anti-terrorism efforts by assisting collaboration between various emergency response agencies. The benefit of the healthcare representative's work with the intelligence community would be

evaluated based on interviews and surveys of applicable individuals. The assignment to the fusion center could be full-time, part-time, or even an ad-hoc liaison position. In the surveys, several fusion centers reported that a part-time assignment was ideal for a medical and health representative. The important concept is formal involvement and relationship-building prior to a catastrophic event.

Policy Option C is the most cost-effective solution to the information problems pointed out in the 9/11 Commission Report and many other documents referenced in the literature. Progress has been made in intelligence sharing within law enforcement and should seamlessly expand to include the medical field, as is the case in some fusion centers.

4. Policy Option D

Research and analysis clearly advocate intelligence fusion centers fully integrate public safety disciplines, including the medical and health community. In addition to this initiative, local emergency medical communities and public health departments could successfully join fusion center efforts by supporting and becoming an active participant in a Terrorism Liaison Officer Program.

Implementation of the plan to involve the medical community into the fusion center process, including the TLO Program needs to be a well-considered and phased approach, supported by all parties involved as well as the public.

Strong leadership, guidance and support from both the law enforcement and medical fields are critical for success. Specifically, the fusion center should identify one or two leaders in the medical field to devise an initial strategy for involving the greater medical community. Eventual expansion into the medical community must then include a brainstorming meeting of the key stakeholders. Before full implementation of a medical TLO program, involved agencies should seek legal review. They must ensure they have support from elected officials.

A pilot program with a few select individuals from the medical field may be the best course of action. It should consist of individuals who are willing to take the forty-hour TLO training program and commit to a long process of implementation.

Initially, the best medical TLOs recruits may be EMS field personnel and the hospital emergency staff. These groups tend to have good working relations with law enforcement. They are already accustomed to the mandated reporting of such crimes as elder and child abuse, shootings and stabbings and other illicit activities. Prior to admission into the TLO program, applicants should be vetted. Supervisor approval should be procured. A basic background check should be completed before access is granted to the secure website.

TLO training includes an extensive overview of the terrorist activities and potential threats. The program includes training in the recognition of terrorism planning activities. Training is designed to increase awareness of criminal terrorist support activities such as illegal cigarette sales, pirated and counterfeit DVD and CD sales and drug dealing, all of which have been linked to known terrorist groups funding actions.⁶³

After completion of the TLO program, the medical representatives can bring a value-added benefit back to their respective agencies. Thus, fellow employees can be trained during in-services. This allows natural support for the growth of the program. TLO members receive "For Official Use Only" bulletins via email and some of these can be passed onto relevant supervisors on a need-to-know basis. This will likely garner support from supervisors since they will be receiving information otherwise not readily available to them.

Once the project is widened and fully implemented, the community will need to accept that its first responders have additional responsibilities as intelligence sensors on top of their life-saving duties. In general, there is no

⁶³ Arron Edens, FBI JTTF, "Criminal Activity Supporting Terrorism" (paper presented to the East Bay Terrorism Early Warning Group, Dublin, California, December 6, 2006).

significant opposition to this shift. The essential element of community acceptance is early involvement and assurances of objectivity and integrity. If the TLO Program is successful, then a more complete model of medical and health involvement in the fusion center can emerge.

5. Policy Option Recommendation

Ideally, Policy Options C and D should be implemented together since they are mutually beneficial. Policy Option C would formally place one to two medical representatives in the fusion center as active members of the core team. He or she should work closely with or even manage the TLO Program as described in Policy Option D.

The TLO Program needs an active member of the fusion center as its point of contact. It should be someone familiar with the medical discipline who can ensure smooth communication between those in the field and the center. A well-managed TLO Program would empower multiple medical and health disciplines to be active intelligence collectors within the communities they serve.

Many in the medical community are interested in becoming more engaged in anti-terrorism efforts and are ready to engage in a TLO Program. Several medical TLO Programs are under development. TLOs need training, support and a reliable contact within the fusion center who understands the environment in which medical TLOs work. As vital sensors in the war on terror, the medical health community and its TLOs are valuable resources that are too important to be overlooked.

Policy Option C puts forth a format for substantive involvement of a medical representative in a fusion center. Implementation of this option brings expertise, a network of specialists and contacts for accurate information dissemination to the medical and health community.

The literature review shows strong support for this endeavor. As the surveys and interviews have illustrated, fusion centers boasting a medical

component are pleased with the results. The Arizona Counter Terrorism Information Center has an active TLO Program including representation from several medical and health disciplines. The coordinator of this program is a paramedic who is the full-time representative to the center. This should be recognized by other centers as a “smart practice” worthy of consideration.

VII. CONCLUSION

The best way to escape from a problem is to solve it.

– Alan Saporta

A. SUMMARY

The link between the literature, survey results, interviews and the policy options is cogent. The literature gives specific guidelines for the substantive inclusion of non-law enforcement public safety representation, including medical and health disciplines, in the intelligence fusion center process. The comprehensive Fusion Center Guidelines document produced by the Department of Justice and the Department of Homeland Security provides a step-by-step process to form effective, multi-disciplinary, multi-agency fusion centers at all levels of government.

Surveys and interviews conducted as part of the research included federal, state and local fusion centers. In them, it was discovered that centers having medical and health representation are all pleased with the integration of their important resource. Interviews with law enforcement fusion center managers confirmed that having a representative was “critical and integral” to the overall counter-terrorism strategy.⁶⁴ Fusion centers that do not have a medical component may not know what they are missing.

Fusion centers need to be made aware of the benefits of having a medical and health representative as part of the center. They should be advised of the strong recommendations and specific guidelines from the many government documents advocating medical incorporation into the intelligence process.

⁶⁴ Kristine A. Beardsley, FBI Special Agent, WMD Coordinator, interview by author, December 12, 2006.

The policy options outline several ways to transition current intelligence systems into more inclusive models. Policy Option C and D are mutually supportive and should be considered together. The presence of formal medical and health representatives will enhance the network of medical Terrorism Liaison Officers in the community. The surveys showed multiple successful models of Policy Option C and D working well as a combined effort.

There are several models for effective medical representation within fusion centers. According to each fusion center, there is a wide range of duties and time commitment assignments. The few FBI JTTFs that include a medical taskforce officer at all have consistently chosen paramedics to fill this role. Meanwhile, those state fusion centers that have a medical and health representatives generally use Public Health Nurses to fill this role. This appears to be the de-facto model for state fusion centers. Local Terrorism Early Warning Groups have had the most comprehensive involvement of non-law enforcement disciplines, including multiple representatives from several medical disciplines. There are several successful examples of this model.

Interestingly, when speaking with FBI JTTF members and public health officials about including medical representation into the intelligence process, many authorities had the same response. In interviews, the same comment was repeated: “What a great idea! Why haven’t we thought of this earlier?”^{65,66}

The 2001 anthrax laced letters was, in effect, a warning to public health and law enforcement officials that served to indicate the relevance of pre-event collaboration. The medical implications of weapons of mass destruction are profound. All agencies would benefit in their prevention, preparedness, response and recovery efforts by including the medical and health community.

⁶⁵ Anthony Iton, MD, MPH, JD, Alameda County Health Officer, interview with author, June 15, 2006.

⁶⁶ Vincent Lucero, San Francisco FBI Joint Terrorism Task Force WMD Coordinator, interview with author, August 6, 2006.

At the federal level, the intelligence community is making great strides in interagency coordination, collaboration and information dissemination. While only a handful of JTTFs and fusion centers have a medical or public health representation on the team, it is fast becoming a positive trend.

Support has been found from representatives in the medical, law enforcement and intelligence communities for this effort. Medical involvement could take many forms with various degrees of involvement. It can range from an ad-hoc, liaison “reach-back” relationship to a more formal, full-time assignment, or any creative medium which suits the needs of the participating agencies and members.

Therefore, each fusion center will determine the specific nature of its relationship with the medical world. Despite implementation obstacles, the literature and surveys both indicate interdisciplinary support for this broad initiative. Concerns that will be clarified in practice include the following: credentialing, training, security clearances, time commitment and specific responsibilities. On a case-by-case basis, each fusion center will determine the most suitable representative from the wide range of medical disciplines. The factors governing such assignments will vary based on the each fusion center’s mission and focus.

The early successes of a number of FBI JTTFs, state fusion centers and local TEWGs should be looked to for guidance. Smart practices for the inclusion of medical representatives can come from these centers.

B. RECOMMENDATIONS FOR FUTURE RESEARCH

While there is no set of universally accepted guidelines for smart practice, common themes have emerged. Specific recommendations should be worked out as well as basic job descriptions for new medical and health representatives.

General functions, such as information dissemination and analytical support, are widely accepted as baseline responsibilities. Some individual fusion

centers have detailed job duties specific to their need. For example, the medical/health representative in the Arizona Counter Terrorism Information Center is responsible for managing the Terrorism Liaison Officer Program. Research is needed to identify specific responsibilities to be standardized throughout the industry.

Within each fusion center, distinct processes have shaped the role of the medical representative. Based on these unique needs, fusion centers select matching members from various medical disciplines: public health, fire department and emergency medical services. One state fusion center has a veterinarian as its representative. The process of selecting a representative, vetting, attaining security clearance and training is variable. Research investigating the variances and similarities among fusion centers would benefit the field with a catalog of best practices and recommendations.

The integration of medical and health representation into fusion centers has had much success across the country at all levels of government. While more work is necessary to fully realize the goal, the potential counter-terrorism benefit for the country is worth the effort. The safety and protection of the homeland is our premier responsibility, and what is offered in this paper is a vision of an attainable, cost-effective enhancement to current law enforcement efforts. This is an exciting field for potential research. New and groundbreaking endeavors such as this are open for ideas, direction and the development of best practices.

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